

**CATEGORICAL EXCLUSION REVIEW AND DECISION MEMO**  
**Grand Mesa, Uncompaghre and Gunnison National Forests**  
**Gunnison Ranger District**  
**Gunnison County, Colorado**

**Date:** 06/02/2014

**Authorized Officer:** John R. Murphy

**Name of Project or Authorization:** Willow Creek Bridges #1 and #2 Replacement

**Location of Project:** T14S, R82W, Section 22, 6<sup>th</sup> PM, T14S, R82W, Section 25, 6<sup>th</sup> PM

**Description of Project or Authorization:** I am authorizing the replacement of two bridges in Gunnison County, Colorado. The Gunnison Ranger District, under a project agreement with Gunnison County, will replace two bridges on Willow Creek between Taylor Park Reservoir and Taylor Park. Both bridges will be installed in approximately the same location as the existing bridges. The Forest Service will purchase the bridges and they will be installed by Gunnison County. Replacement of bridges is estimated to occur in September of 2015 for Willow Creek Bridge #2 when traffic and water flows in the creek are lower and later, as funding becomes available, for Willow Creek Bridge #1. Both bridges will be larger in both width and span than existing bridges to meet engineering standards for existing roads and to minimize impact on and restore stream channel. Details of the activities involved in the replacements follow.

**Geotechnical core holes** bridge footers will be required. Each bridge will require four core holes 2 to 4 inches in diameter and approximately 25 feet deep. They will be approximately four feet behind the current bin wall. They will be backfilled immediately.

**Willow Creek Bridge #1** is located in T14S, R82W, Section 22, 6<sup>th</sup> PM on National Forest System Road (NFSR) 765 approximately 1.85 miles east of NFSR 742 at the existing bridge location. Bridge is needed to replace a structurally deficient bridge to ensure public safety. The existing bridge will be removed and replaced with a new bridge in its current location. A detour is easily available at this location so the road may be closed during the replacement. No temporary traffic crossing will be necessary. Traffic during construction will be rerouted down County Road 55 to NFSR 742. A precast arch structure and wall system are proposed for use. The proposed bridge will span 36 feet; have a rise of 11 feet 7 ¾ inches and four 18 foot wingwalls. Length not including wingwalls will be 54 feet. The finished road surface will be wide enough to accommodate 2 lanes of traffic and an OHV lane. Traffic during construction will be detoured to County Road 55 which is on the opposite side of Willow Creek. Construction will last approximately 3 to 4 weeks. Date of construction has not yet been determined, but will be between the summer of 2015 and summer of 2019. Construction will not happen in the winter.

**Willow Creek Bridge #2** is located in T14S, R82W, Section 25, 6<sup>th</sup> PM on NFSR 765 (approximately 3.25 miles east of FS Road 742) in the Taylor Park area. Bridge is needed to replace a structurally deficient bridge to ensure public safety, return channel to a more natural condition and provide for adequate aquatic passage due to beaver activity in the area. The existing bridge will be removed and replaced with a new bridge in its current location. A temporary bypass will be built to the south of the existing road to reroute traffic during construction. This bypass location was selected to avoid any impacts to a fen located northwest of the bridge location. The temporary bypass will be up to 300 feet long with a 12 foot driving surface. It will be located approximately 60 feet south of the existing road. Bypass will be removed after the new structure is opened. Material used for the bypass will be removed after construction and will be used to widen the existing road approaching the newly widened bridge. A precast arch structure and wall system are proposed for use. The proposed bridge will span 27 feet; have a rise of 6 feet 8 ¾ inches and four 12 foot wingwalls. Length not including wingwalls will be 40 feet. The finished road surface will be wide enough to accommodate 2 lanes of traffic an ATV lane. Construction of this bridge will be more challenging as a temporary bypass road on the east side of the existing bridge will be required. Two

24" culverts will be placed adjacent to the existing bridge temporarily for a detour during construction so that road will not be closed to the public. Site distance clearing on the adjacent corners of the road approaches to the bridge will improve visibility and provide material for the new abutments. Construction will last approximately 4 -5 weeks. Date of construction has not yet been determined, but will occur anytime between summer of 2015 until 2019, but most likely around Labor Day, 2015. Construction will not occur in the winter.

**Utility lines** will be moved away from bridge structures or off of the bridges. Utilities, in conduit, will be plowed in with a vibratory plow to avoid adding or removing material to ensure uninterrupted service. Gunnison County Electric Association and Century Link lines will be off-set west of Willow Creek Bridge #1 and approximately 30 feet southeast of Willow Creek Bridge #2. There are existing disturbance scars and areas that will be cleared for bridge approach site distance on the right side of the road from Tincup southeast of Bridge #2 that will be utilized for these utility relocations. The Forest Service is encouraging both companies to co-locate lines. This will occur prior to bridge work. This will result in an amendment to the existing Special Use Permits and will require new maps to be filed when completed.

**Best Management Practices (BMPs)** will be used to minimize impacts on Forest resources. BMPs will be used for wildlife and fish, stream channel, water quality and soils, bridge and bypass design, preconstruction activities, fueling and waste materials, noxious weeds and invasive species, restoration and maintenance activities. These are included as Appendix A to this decision.

**Restoration** efforts will be initiated after bridge installment is completed at each project location. Work will focus on any ground disturbance that occurred and restoring the area of the bypass route. The bypass route will require culverts to be placed into the creek and the use of geotextile. All of this will be removed once the bypass is no longer needed. Efforts will be done prior to project initiation to dig up willows that are located in the area of the bypass route. These willows will be placed into the creek to be used for replanting at the end of the project. Heavy equipment will be used to smooth out the surface disturbance in the riparian/wetland area and the upland sagebrush area that the bypass route intersected. This will help to provide a good seed-bed for adjacent native plants to re-establish themselves. Monitoring the project locations post project for any noxious weed infestation is recommended.

**Additional Permits & Plans** are required for bridge including:

- Obtain stormwater (402) discharge permits, as required; however, this permit is not anticipated at this time.
- Prepare Spill Prevention Control and Countermeasure Plan per the requirements of 40 CFR 112.
- A Clean Water Act 404 permit will be required through the U.S. Army Corps of Engineers when dredge or fill material will be discharged to waters of the United States.
- Develop and implement an erosion and sediment control plan to avoid or minimize downstream impacts using measures appropriate to the site and the proposed activity that covers all disturbed areas, including borrow, stockpile, fueling, and staging areas used during construction activities.

The bridge activities are categorically excluded under 36 CFR 220.6 (e) (18) "Restoring wetlands, streams, riparian areas or other water bodies by removing, replacing, or modifying water control structures such as, but not limited to, dams, levees, dikes, ditches, culverts, pipes, drainage tiles, valves, gates, and fencing, to allow waters to flow into natural channels and floodplains and restore natural flow regimes to the extent practicable where valid existing rights or special use authorizations are not unilaterally altered or canceled" These bridge replacements are similar to the examples cited for this category and will accomplish not only the goals associated with improved bridge safety and engineering design to match the existing roads, but will also improve stream channel function and habitat. Incidental to the bridge activities the utilities will be moved over slightly consistent with 36 CFR 220.6 (e)(2) "Additional construction of reconstruction of existing utility lines in a designated corridor " and the examples cited therein.

### **Evaluation of Extraordinary Circumstances**

The following documents environmental compliance for projects categorically excluded under NEPA per 36 CFR 220.6 (b):

- There are no Federally listed threatened or endangered terrestrial wildlife species, aquatic species or plant species or their designated critical habitat, species proposed for Federal listing or proposed critical habitat or FS sensitive species within the project area and therefore no effect. Timing restrictions are in effect in the event that nesting birds are or become present. Surveys will be required if construction is desired prior to July 31<sup>st</sup>.
- Floodplains exist within the project area; however, the use of BMPs in Appendix A will minimize or negate effects to those resources. Permits will be required in compliance with the Clean Water Act. Installation of the appropriately sized and designed span bridges will restore the natural stream channel geometry. No wetlands or municipal watersheds will be impacted by this action.
- There are no Congressionally designated areas, Colorado Roadless areas, or Research Natural Areas present in the project area.
- No religious or cultural sites, archaeological sites or historic properties or areas will be affected by this action.

### **Scoping Efforts**

The project was listed on the Schedule of Proposed Actions for the Grand Mesa, Uncompahgre and Gunnison National Forests. Letters were sent to County and neighboring land owners and communities. Comments were received from Gunnison County regarding permitting. Internal scoping was conducted with Forest specialists.

### **Findings Required by Other Laws**

This decision is consistent with laws, regulation and policy as well as management direction, standards and guidelines in the GMUG National Forest Land Management Plan. It is also compliant with Clean Water Act and Clean Air Act.

### **Implementation**

Implementation may occur immediately; however, it is unlikely due to funding and permitting, and timing requirements. Construction activities are realistically expected to occur between summer 2015 and fall 2019.

### **Opportunities for Administrative Review or Appeal**

There is no opportunity for administrative review or appeal.

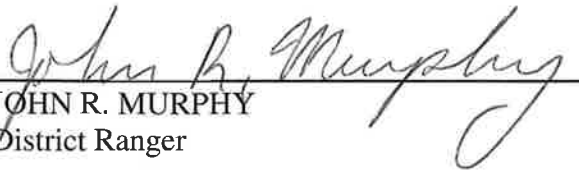
### **For Additional Information Contact:**

Chad Wellman, Civil Engineer, 970-642-4474 or [cwellman@fs.fed.us](mailto:cwellman@fs.fed.us).

### Decision and Finding

I am approving the geotechnical work, bridge replacements and utility relocations and have determined there are no extraordinary circumstances related to the proposed action that warrant further analysis or documentation in either an environmental assessment or environmental impact statement.

Signature

  
JOHN R. MURPHY  
District Ranger

Date 6-5-2015

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## **Appendix A. Willow Creek Bridges Best Management Practices and Design Features**

Many of the following Best Management Practices (BMPs) and design features are based on the Forest Service's Regional Watershed Conservation Practices Handbook (R2-FSH-2509.25\_10) (WCP) and National Core BMP technical Guide (Volume 1,FS-990a, April 2012) (National Core BMP). These are common practices that are part of Gunnison County's and the Forest Service's normal operating procedures for activities related to bridges and culverts. These activities are documented in various plans and designs, inspection and monitoring activities. The following list of BMPs that will be used is separated by most applicable resource area.

### ***Wildlife and Fish***

- If project activities occur prior to July 31, a field visit will be required by the District wildlife biologist prior to implementation to avoid disturbing federally listed or sensitive wildlife during the nesting/denning periods.
- In the event any federally listed or sensitive species are discovered in the project area during construction activities, consult the District wildlife biologist or botanist to determine if species are being adversely affected.
- Keep heavy equipment out of stream during fish spawning, incubation, and emergence periods (WCP 12.1(3)).

### ***Stream Channel***

- Add or remove rocks, wood, or other material in streams only if such action maintains or improves stream health. Leave rocks and portions of wood that are embedded in beds or banks to prevent channel scour and maintain natural habitat complexity (WCP 12.3(5)).
- Do not relocate natural stream channels if avoidable. Return flow to natural channels where practicable. Where reconstruction of stream channels is necessary, construct channels and floodways with natural stream pattern and geometry, stable beds and banks and provide habitat complexity (WCP 12.3(5)).
- Use suitable measures to divert or partition channelized flow around the site or to dewater the site as needed to the extent practicable (National Core BMP AqEco-2)
  - Return clean flows to channel or waterbody downstream of the activity.
  - Restore flows to their natural stream course as soon as practicable after construction or before seasonal closures.

### ***Water Quality and Soils***

- Avoid soil-disturbing actions during periods of heavy rain or wet soils. Apply travel restrictions to protect soil and water (WCP 13.1(9)).
- Avoid scheduling instream work during periods that could be interrupted by high flows (National Core BMP AqEco-2). Work is anticipated to occur in late summer or fall, so this should not be a concern.
- Minimize heavy equipment entry into or crossing water as is practicable to cross at designated points, build crossings, or do restoration work, or if protected by at least 1 foot of packed snow or 2 inches of frozen soil (National Core BMP AqEco-2 and WCP 12.1(3)).
- Locate temporary parking areas such that surface and subsurface water resources are protected (WCP 15.1(15)).
- To the extent practicable given the nature of the activities, minimize excavation of earth material and storage of excavated earth material in, any stream, swale, wetland, or water influence zone (WIZ) (WCP 12.1(3)).

- Emphasize natural stabilization processes consistent with the stream type and capability (Rosgen and Proper Functioning Condition processes) when restoring damaged stream banks (WCP 12.1(3)).
- Retain stabilizing vegetation on unstable soils. Avoid new roads or heavy equipment use on unstable or highly erodible soils (WCP 13.1(9)).
- Use suitable measures to locate, construct, and decommission or stabilize bypass roads to avoid, minimize, or mitigate adverse effects to soil, water quality, and riparian resources (National Core BMP Road-7).
- Use suitable measures to avoid, minimize, or mitigate damage to the waterbody and banks when transporting materials across the waterbody or aquatic management zone during construction activities (National Core BMP Road-7).
- Use suitable measures to avoid or minimize scour and erosion of the channel, crossing structure, and foundation to maintain the stability of the channel and banks (National Core BMP Road-7).
- Install sediment and stormwater controls before initiating surface-disturbing activities to the extent practicable (National Core BMP Fac-2).
- Install suitable stormwater and erosion control measures to stabilize disturbed areas and waterways before seasonal shutdown of project operations or when severe or successive storms are expected (National Core BMP Fac-2).
- Maintain erosion and stormwater controls as necessary to ensure proper and effective functioning (National Core BMP Fac-2). Prepare for unexpected failures of erosion control measures (National Core BMP AqEco-2).
- Routinely inspect construction sites to verify that erosion and stormwater controls are implemented and functioning as designed and are appropriately maintained (National Core BMP Fac-2).
- Use filter strips, and sediment traps if needed, to keep all sand-sized sediment on the land and disconnect disturbed soil from streams and wetlands. Disperse runoff into filter strips. Key sediment traps into the ground. Clean them out when 50% full. Remove sediment to a stable, gentle, upland site and revegetate (WCP 13.2 - (10)).
- Keep heavy equipment out of filter strips except to do restoration work or build armored stream approaches (WCP 13.2(10)).
- Design road ditches and cross drains to limit flow to ditch capacity and prevent ditch erosion and failure (WCP 13.2(10)).
- To the extent practicable given the bypass requirements, do not encroach fills or introduce soil into streams, swales or wetlands (WCP 13.3(11)).
- Properly compact fills and keep woody debris out of them (WCP 13.3(11)).
- Minimize bank and riparian area excavation during construction to the extent practicable (National Core BMP AqEco-2).
- Keep excavated materials out of the waterbody (National Core BMP AqEco-2)

### ***Bridge and Bypass Design***

- Design all roads and other soil disturbances to the minimum standard for their use and to "roll" with the terrain as feasible in order to limit the use of cuts and fills (WCP 13.2(10)).
- Install stream crossings to meet Corps of Engineers and State permits, pass normal flows and be armored to withstand design flows (WCP 12.2(4)).
- Size bridges to pass debris. Engineers work with hydrologists and aquatic biologists on site design (WCP 12.2(4)).
- Install stream crossings on straight and resilient stream reaches, as perpendicular to flow as practicable, and to provide passage of fish and other aquatic life (WCP 12.2(4))

- Install stream crossings to sustain bankfull dimensions of width, depth, and slope and keep streambeds and banks resilient. Favor bridges, bottomless arches or buried pipe-arches for those streams with identifiable floodplains and elevated road prisms, instead of pipe culverts. Favor armored fords for those streams where vehicle traffic is either seasonal or temporary, or the ford design maintains the channel pattern, profile and dimension (WCP 12.2(4)).
- Bridge design will maintain natural patterns of existing channel morphology identified in longitudinal and cross-sectional surveys conducted prior to project implementation (WCP 12.2).
- Use an adequately long bridge span to avoid constricting the natural active flow channel and minimize constriction of any overflow channel (National Core BMP Road-7).
- Place foundations onto nonscour-susceptible material (e.g., bedrock or coarse rock material) or below the expected maximum depth of scour (National Core BMP Road-7).
- Avoid placing abutments in the active stream channel to the extent practicable. Place in-channel abutments in a direction parallel to the streamflow where necessary (National Core BMP Road-7).
- Set bridge abutments or footings into firm natural ground (e.g., not fill material or loose soil) when placed on natural slopes (National Core BMP Road-7).

### ***Maintenance***

- Do not disturb ditches during road maintenance unless needed to restore drainage capacity or repair damage. Do not undercut the cut slope (WCP 13.3(11)).
- Armor rolling dips as needed to prevent rutting damage to the function of the rolling dips (WCP 13.3(11)).
- Ensure that road maintenance provides stable surfaces and drainage (WCP 13.3(11)).
- Insure that all designed road drainage features are fully functional and effective throughout the operational periods (WCP 13.3 (11)).
- Use suitable measures to avoid or minimize, to the extent practicable, damage to the bridge and associated road from expected flood flows, floating debris, and bedload (National Core BMP Road-7).

### ***Restoration***

- Site-prepare, drain, decompact, revegetate, and close bypass roads and other disturbed sites within one year after use ends. Provide stable drainage that disperses runoff into filter strips and maintains stable fills. Do this work concurrently. Stockpile topsoil where practicable to be used in site restoration. Use certified local native plants as practicable; avoid persistent or invasive exotic plants (WCP 13.4(12)).
- Remove all temporary stream crossings (including *culverts* and all fill material in the active channel), restore the channel geometry, and restore the original shape and revegetate the channel banks using certified local native plants as practicable; avoid persistent or invasive exotic plants (WCP 13.4(12)).
- Contour site to disperse runoff, minimize erosion, stabilize slopes, and provide a favorable environment for plant growth (National Core BMP AqEco-2)
- Restore cuts and fills to the original slope contours where practicable and as opportunities arise to re-establish subsurface pathways. WCP 13.4(12)
- Revegetate cuts and fills upon final shaping to restore ground cover, using certified local native plants as practicable; avoid persistent or invasive exotic plants. Provide sediment control until erosion control is permanent (WCP 13.3(11))
- Use native vegetation for stream bank stabilization whenever practicable (WCP 12.1(3)).
- Use certified local native plants as practicable; avoid persistent or invasive exotic plants (WCP 13.4(12)).

- Establish effective ground cover on disturbed sites to prevent accelerated on-site soil loss and sediment delivery to streams. Restore ground cover using certified native plants as practicable to meet revegetation objectives (WCP 13.4(12))

### ***Chemicals, Fuels and Waste Materials***

- Locate vehicle service and fuel areas, chemical storage and use areas, and waste dumps and areas on gentle upland sites. Mix, load and clean on gentle upland sites (WCP 15.1(15))
- Refuel and service equipment only in designated staging areas (National Core BMP AqEco-2).
- Dispose of chemicals, *fuel*, *oil*, and, *empty* containers in State-certified disposal areas (WCP 15.1(15)).
- Install contour berms and trenches around vehicle service and refueling areas, chemical storage and use areas, and waste dumps to fully contain spills. Use liners as needed to prevent seepage to ground water (WCP 15.2(15)).
- Consideration should be given to disposal of human waste, wastewater and garbage and other solid wastes (WCP 15.1(15)).
- Report spills to Forest Service and take appropriate clean-up action in accordance with applicable state and federal laws, rules and regulations. Contaminated soil and other material shall be removed from NFS lands and disposed of in a manner according to state and federal laws, rules and regulations (WCP 15.2(15)).

### ***Preconstruction Activities***

- Coordinate stream channel, shoreline, and wetland activities with appropriate Local (County), State, and Federal agencies (National Core BMP AqEco-2).
- Locate and establish access and staging areas near the project site but outside of work area boundaries, AMZs, wetlands, and sensitive soil areas to minimize ground disturbance (National Core BMP AqEco-2).
- Establish designated areas for equipment staging, stockpiling materials, and parking to minimize the area of ground disturbance (National Core BMP Fac-2).
- Establish, clearly delineate (with flagging, cones or signs) and maintain construction area limits to the minimum area necessary for completing the project and confine disturbance to within this area (National Core BMP Fac-2 and AqEco-2).
- Identify suitable areas offsite or away from waterbodies for disposal sites before beginning operations (National Core BMP AqEco-2).

### ***Noxious Weeds and Invasives***

- Pressure wash and inspect all equipment for weeds and invasive species prior to operation on NFS lands. All equipment operated in or adjacent to the stream will be clean of aquatic and terrestrial invasive species, as well as oil and grease, and is well maintained (National Core BMP AqEco-2).
- Use only clean, suitable materials free of toxins and invasive species for fill material (National Core BMP AqEco-2).
- Removed all project debris from the waterbody in a manner that will cause the least disturbance (National Core BMP AqEco-2).